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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,041	03/16/2004	Jin Hong Kim	46500-000143/US	1235
30593	7590	08/29/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			RAEVIS, ROBERT R	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/801,041

Applicant(s)

KIM ET AL.

Examiner

Robert R. Raevis

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claim 11, where is there support for the “inversely proportional” relationship?

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claim 11, is the pressure varied over cycles on the same disc? If not, how does this method to test “an optical disc” (lines 1-2 of claim 8) (i.e. a single disc) employ pressures/cycles that are applied to other (unrelated) discs?

Claims 8,9 are rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention. Hayashida et al.

As to claim 8, Hayashida et al teach (Para 91) a method to test endurance of an optical disc, including: placing the disc on a turntable; rotating the turntable and disc;

applying pressure to the disc using a scratching unit (abrasive wheels) while the disc rotates a number of turns, so as to scratch the surface of the disc; and ascertaining the abrasion resistance of the sample, said resistance indicative of endurance.

As to claim 9, note that Hayashida employs 5 abrasion cycles in TABLE 3.

Claims 10,11,12,13,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashida et al.

Hayashida refers (Para 91) to a range of cycles under a range of loads, but does not base one (loads) on the other (cycles).

As to claim 10, it would have been obvious to apply a reduced load for a greater number of cycles as it would be desirable to assure that the wheels do not fully pass through the disc of interest, to thus permit for a measurement of a parameter (i.e. the change of thickness" (Para 94)) that's indicative of abrasion resistance.

As to claim 11, one of ordinary skill would be inclined to try a greater force (i.e. double) and reduced number of turns (by half) to produce a test that may be completed over a shorter time, necessarily employing a proportional relation.

As to claim 12,13, it would have been obvious to employ a non-rotating test piece (in place of a wheel) in Hayashida as Hayashida teaches (Para 90,92) that steel wool may effectively permit for abrasion testing of a rotating body. Such a test piece must provide for a sufficient force/area ration to provide for a measure of abrasion. The pressure provided in Applicant's claim 12 is within the range of sufficient pressures, especially as Nakagawa's test piece is non-rotating, just like Applicant's.

As to claim 14, Hayashida suggests (Para 94) depth measurement as a means to evaluate abrasion resistance. In addition, one of ordinary skill would provide for reference values indicative of whether resistance for a particular disc is acceptable. The threshold value provided in Applicant's claim 14 seems to be within one of ordinary skill.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashida et al as applied to claim 8, and further in view of Nakagawa et al.

Hayashida employs a range of loads (2.5-9.8N; corresponding to 25000-98000 gf), but does not provide for the contact area of the wheels to permit for an express teaching of pressure.

As to claim 12, it would have been obvious to employ a non-rotating test piece (in place of a wheel) in Hayashida as Nakagawa teaches that a test element 4 may effectively permit for abrasion testing of a rotating body. Such a test piece must provide for a sufficient force/area ration to provide for a measure of abrasion. The pressure provided in Applicant's claim 12 is within the range of sufficient pressures, especially as Nakagawa's test piece is non-rotating, just like Applicant's.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raemis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 5:30am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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